

DT-V1710CG/U

DT-V1710CG/E STANDARD CIRCUIT DIAGRAMS

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the Δ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal : Colour bar signal (1080/60i)
- (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3) Internal resistance of tester : DC 20k Ω /V
- (4) Oscilloscope sweeping time : H $\Rightarrow$ 20 μ s/div
: V $\Rightarrow$ 5ms/div
: Others $\Rightarrow$ Sweeping time is specified
- (5) Voltage values : All DC voltage values

NOTE:

Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209 $\rightarrow$ R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

• Resistance value

- No unit : [Ω]
- k : [k Ω]
- M : [M Ω]

• Rated allowable power

- No indication : 1/10 [W]
- Others : As specified

• Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable resistor
- FR : Fusible resistor

NOTE:

Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

• Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

• Withstand voltage

- No indication : DC50[V]
- AC indicated : AC withstand voltage [V]
- Others : DC withstand voltage [V]

NOTE:

Electrolytic Capacitors
47/50[Example] : Capacitance value [μ F]/withstand voltage[V]

• Type

- No indication : Ceramic capacitor
- MY : Mylar capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3) Coils

- No unit : [μ H]
- Others : As specified

(4) Power Supply

-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

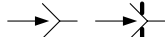
NOTE:

Respective voltage values are indicated

(5) Test point

-  : Test point
-  : Only test point display

(6) Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7) Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND and the ISOLATED(NEUTRAL) : ($\nmid$) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND at the same time with a measuring apparatus (oscilloscope, etc.). If the above precaution is not respected, a fuse or any parts will be broken.

NOTE:

- ◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.
- ◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.
When ordering parts, please use the numbers that appear in the Parts List.

CONTENTS

SEMICONDUCTOR SHAPES.....2-2

BLOCK DIAGRAM.....2-3

CIRCUIT DIAGRAMS.....2-5

 SIGNAL PWB (1/2) AND LED PWB CIRCUIT DIAGRAMS2-5

 SIGNAL PWB CIRCUIT DIAGRAM (2/2)2-7

 MAIN PWB CIRCUIT DIAGRAM (1/2)2-9

 MAIN PWB CIRCUIT DIAGRAM (2/2)2-11

 S. CORRECTION PWB CIRCUIT DIAGRAM2-13

 CRT SOCKET PWB CIRCUIT DIAGRAM2-15

 FRONT CONTROL PWB AND FRONT VR PWB CIRCUIT DIAGRAMS2-17

 MOTHER PWB CIRCUIT DIAGRAM2-19

 REMOTE PWB CIRCUIT DIAGRAM2-21

 SUB DEF MODULE PWB CIRCUIT DIAGRAM2-23

 HV CONTROL MODULE PWB CIRCUIT DIAGRAM2-25

PATTERN DIAGRAMS.....2-27

 MAIN PWB PATTERN2-27

 SIGNAL PWB PATTERN (SOLDER SIDE)2-29

 SIGNAL PWB PATTERN (PARTS SIDE)2-31

 S. CORRECTION PWB PATTERN (SOLDER SIDE)2-33

 REMOTE PWB PATTERN (SOLDER SIDE)2-33

 S. CORRECTION PWB PATTERN (PARTS SIDE)2-34

 REMOTE PWB PATTERN (PARTS SIDE)2-34

 CRT SOCKET PWB PATTERN (SOLDER SIDE)2-35

 LED PWB PATTERN (SOLDER SIDE)2-35

 CRT SOCKET PWB PATTERN (PARTS SIDE)2-36

 LED PWB PATTERN (PARTS SIDE)2-36

 FRONT CONTROL PWB PATTERN (SOLDER SIDE)2-37

 MOTHER PWB PATTERN (SOLDER SIDE)2-37

 FRONT VR PWB PATTERN (SOLDER SIDE)2-38

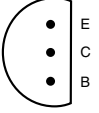
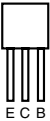
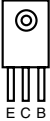
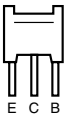
 FRONT CONTROL PWB PATTERN (PARTS SIDE)2-39

 FRONT VR PWB PATTERN (PARTS SIDE)2-39

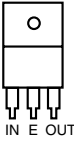
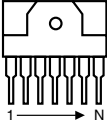
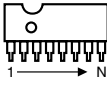
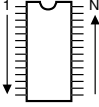
 MOTHER PWB PATTERN (PARTS SIDE)2-39

SEMICONDUCTOR SHAPES

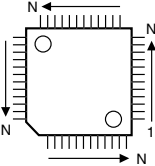
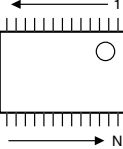
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

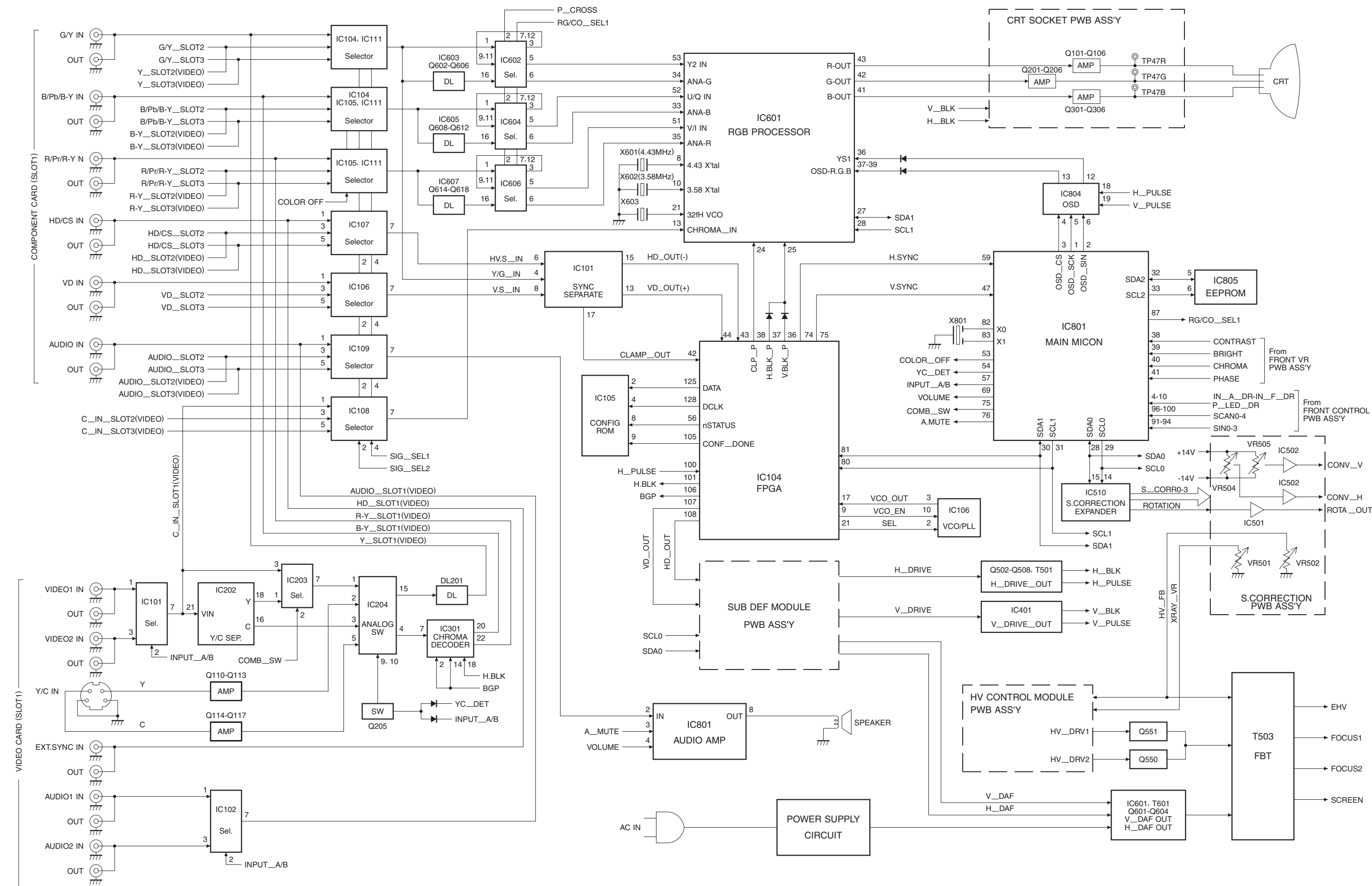
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

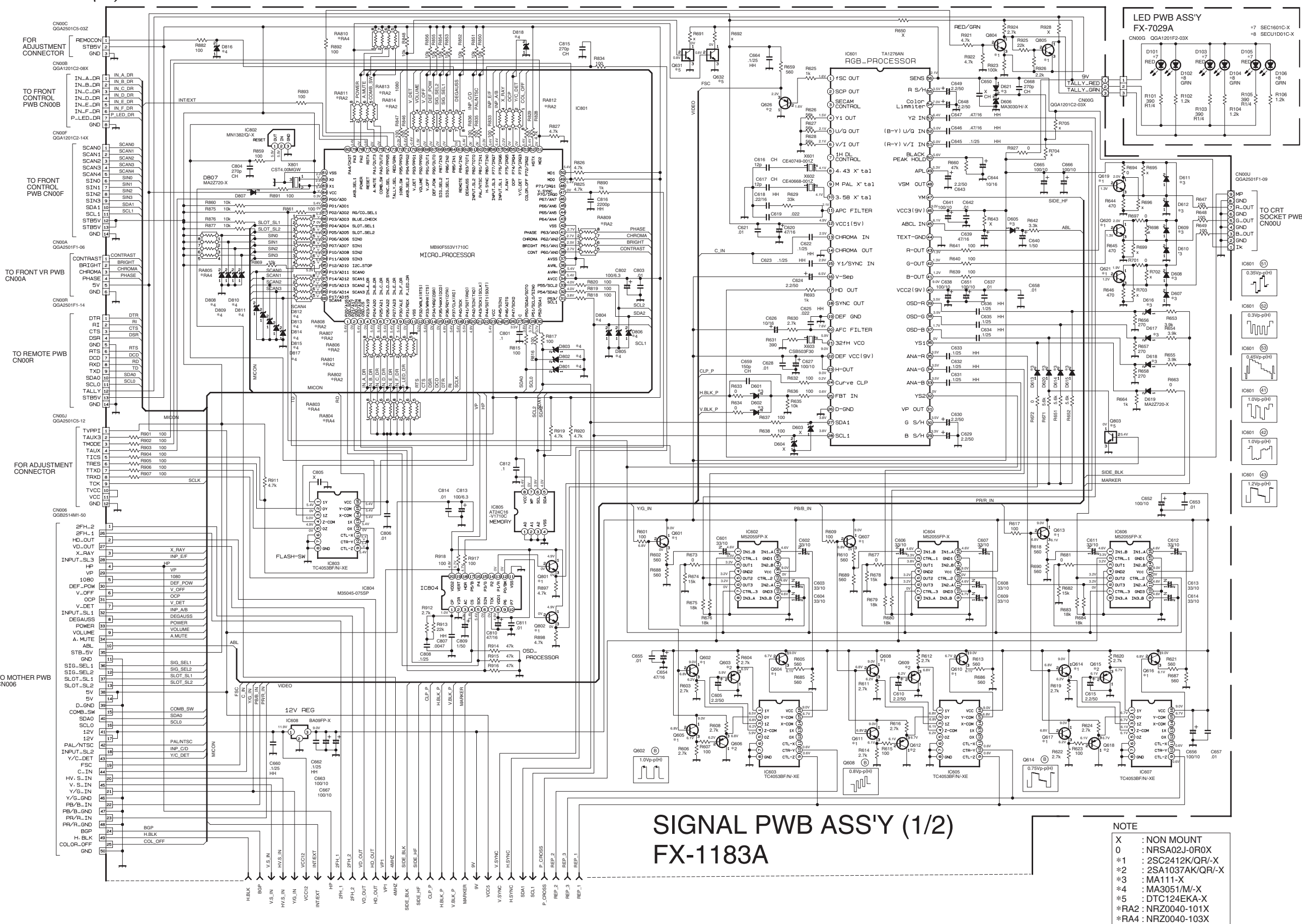
CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM

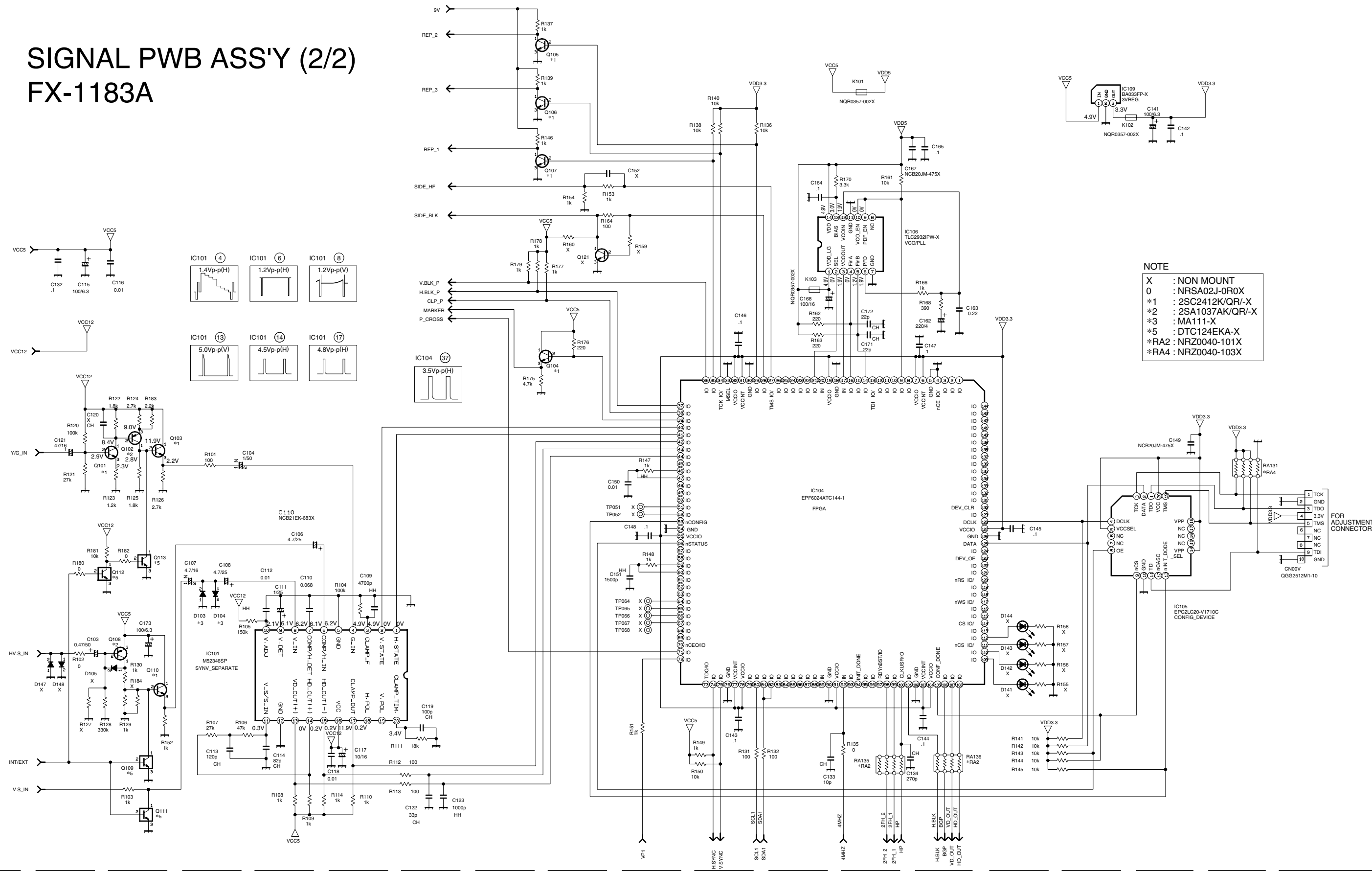


SIGNAL PWB (1/2) AND LED PWB CIRCUIT DIAGRAMS



SIGNAL PWB ASS'Y (2/2)

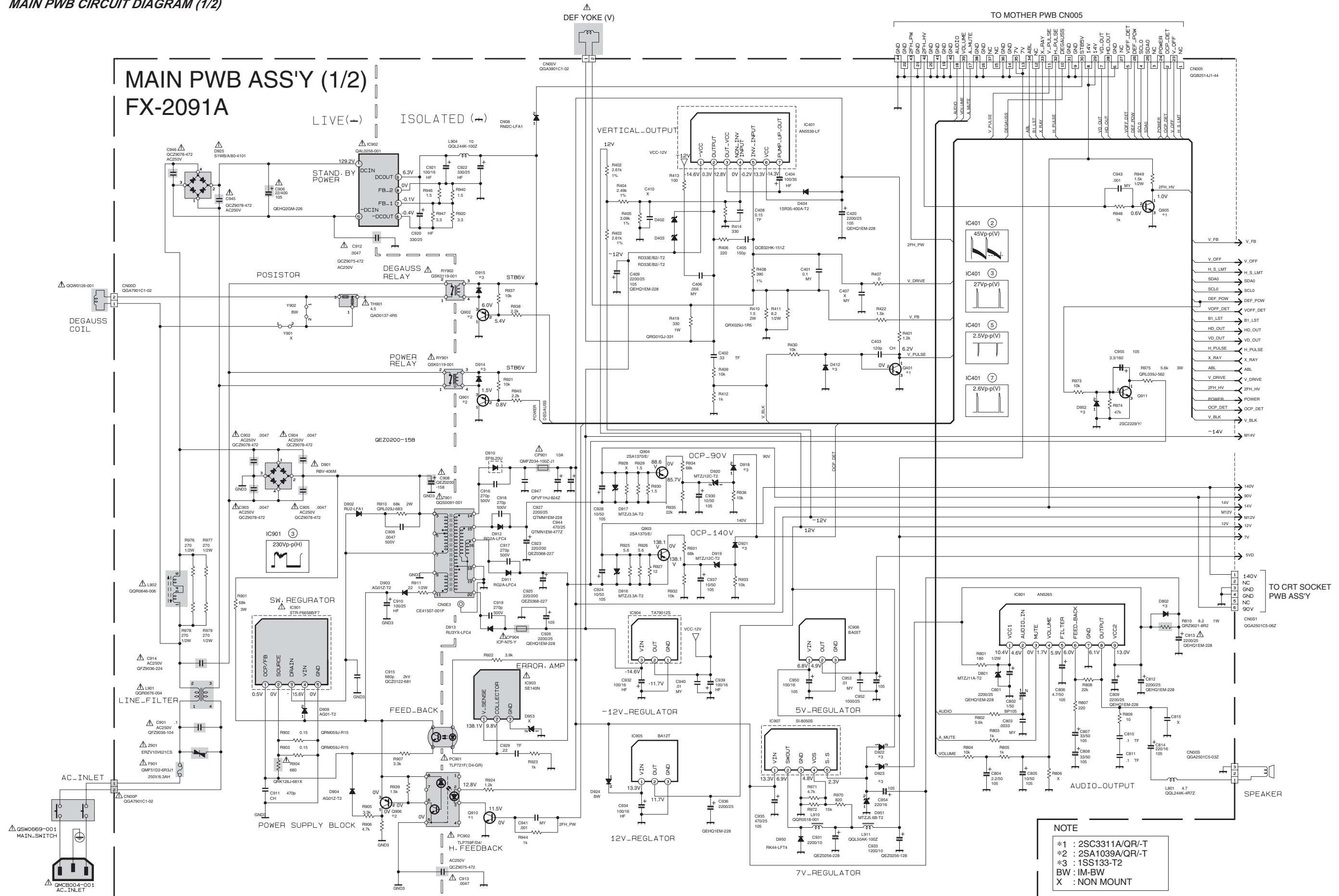
FX-1183A

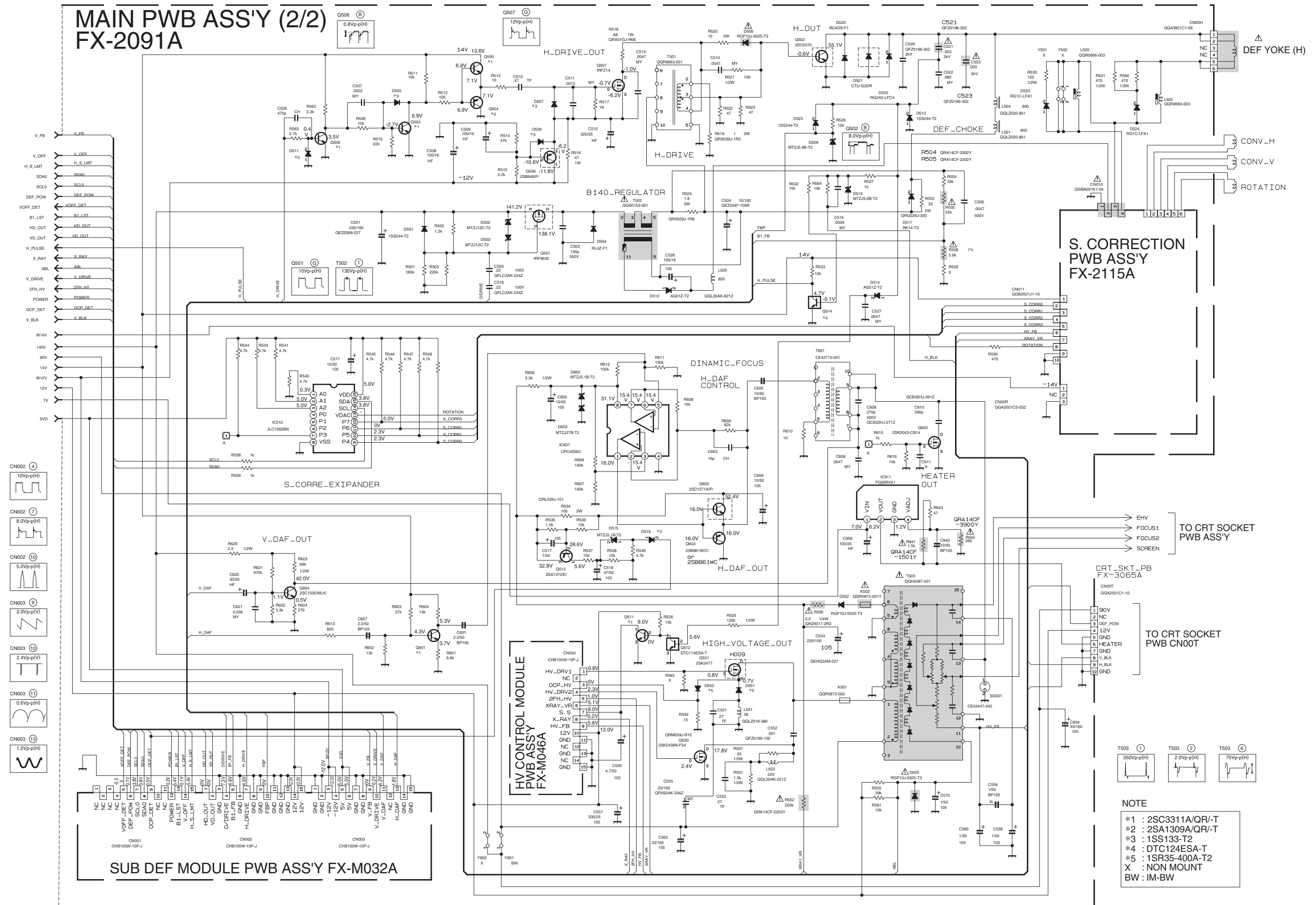


NOTE

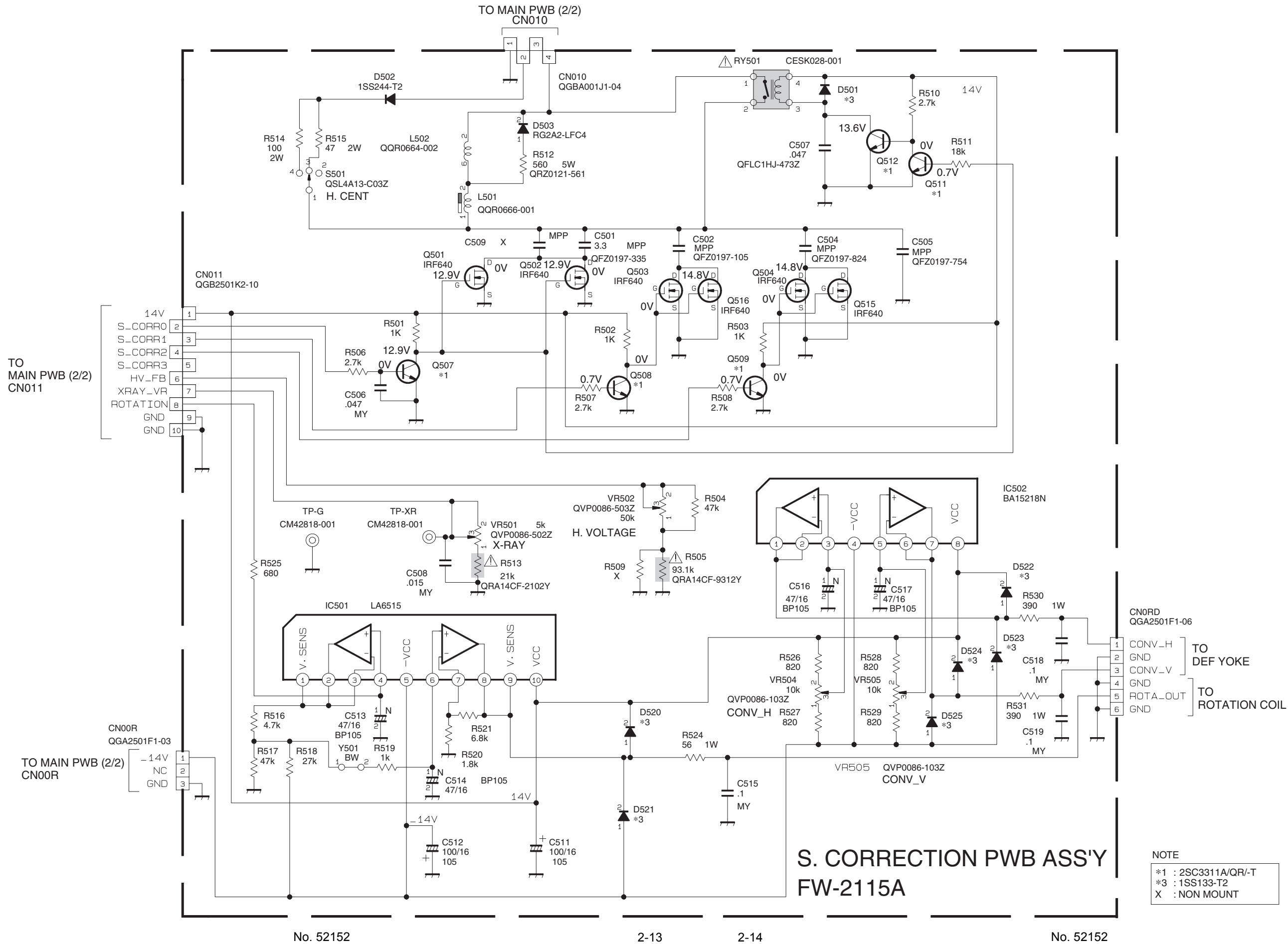
- X : NON MOUNT
- 0 : NRSA02J-0R0X
- *1 : 2SC2412K/QR/-X
- *2 : 2SA1037AK/QR/-X
- *3 : MA111-X
- *5 : DTC124EKA-X
- *RA2 : NRZ0040-101X
- *RA4 : NRZ0040-103X

FOR ADJUSTMENT CONNECTOR



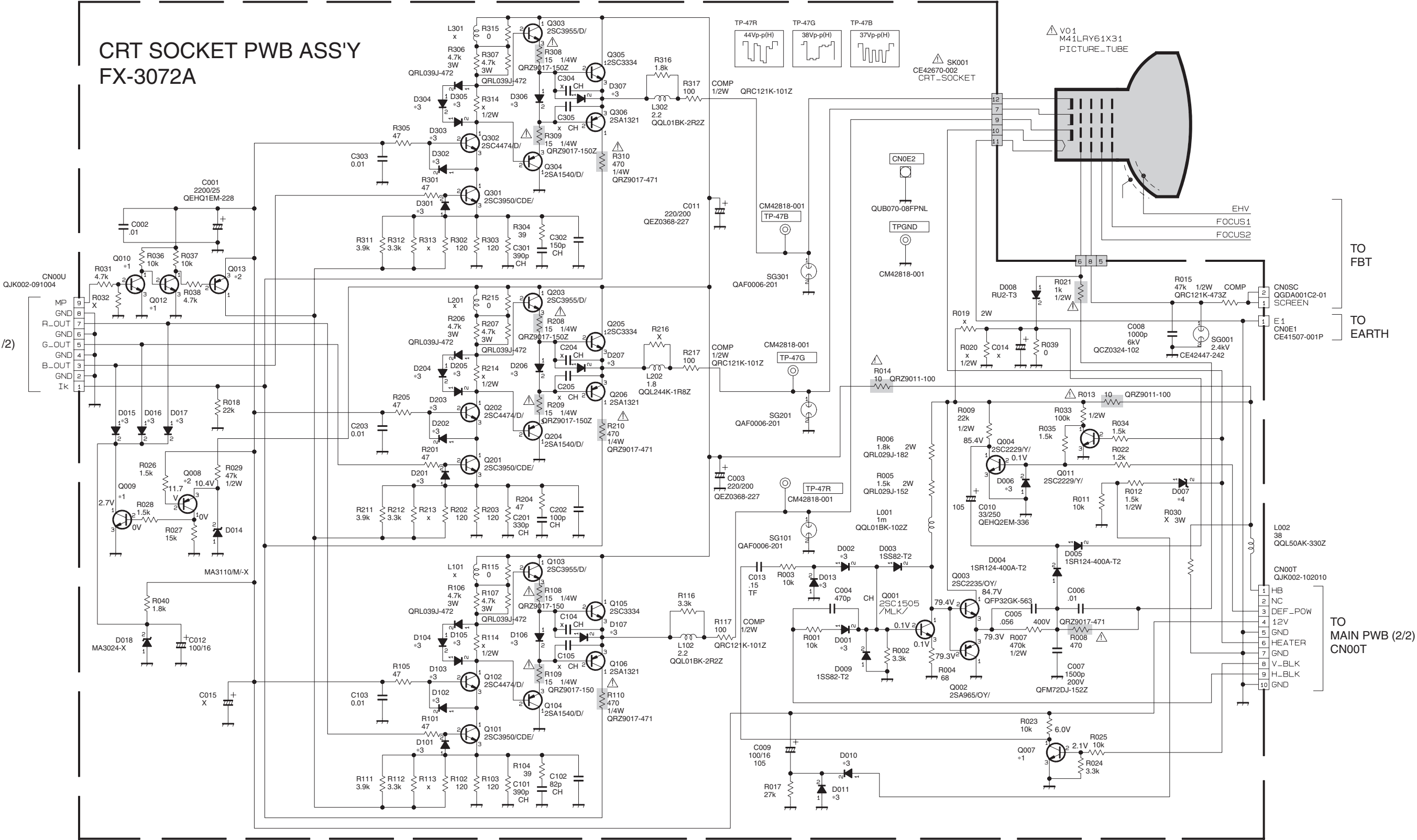


S. CORRECTION PWB CIRCUIT DIAGRAM



CRT SOCKET PWB ASS'Y
FX-3072A

TO
SIGNAL PWB (1/2)
CN00U



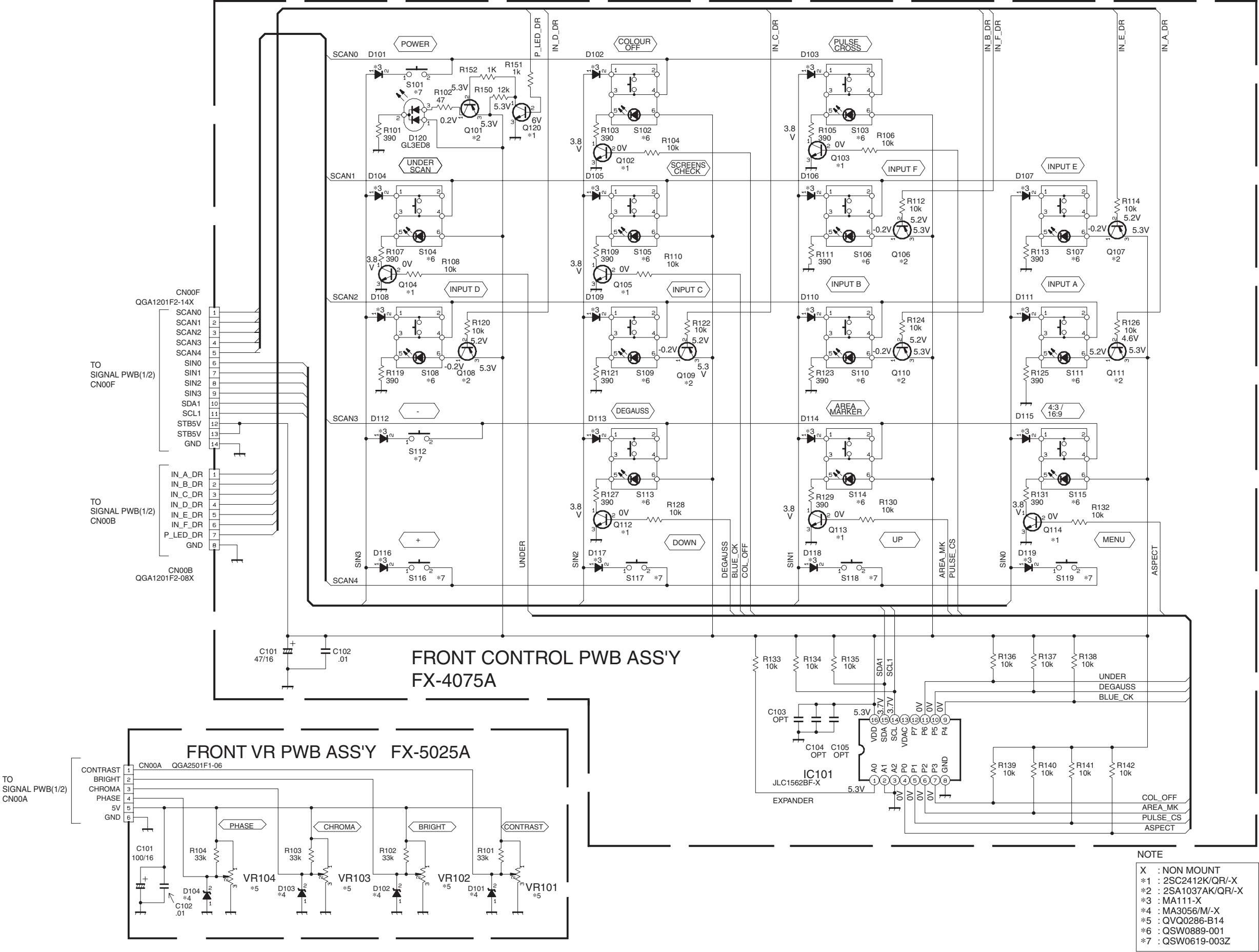
TO
FBT

TO
EARTH

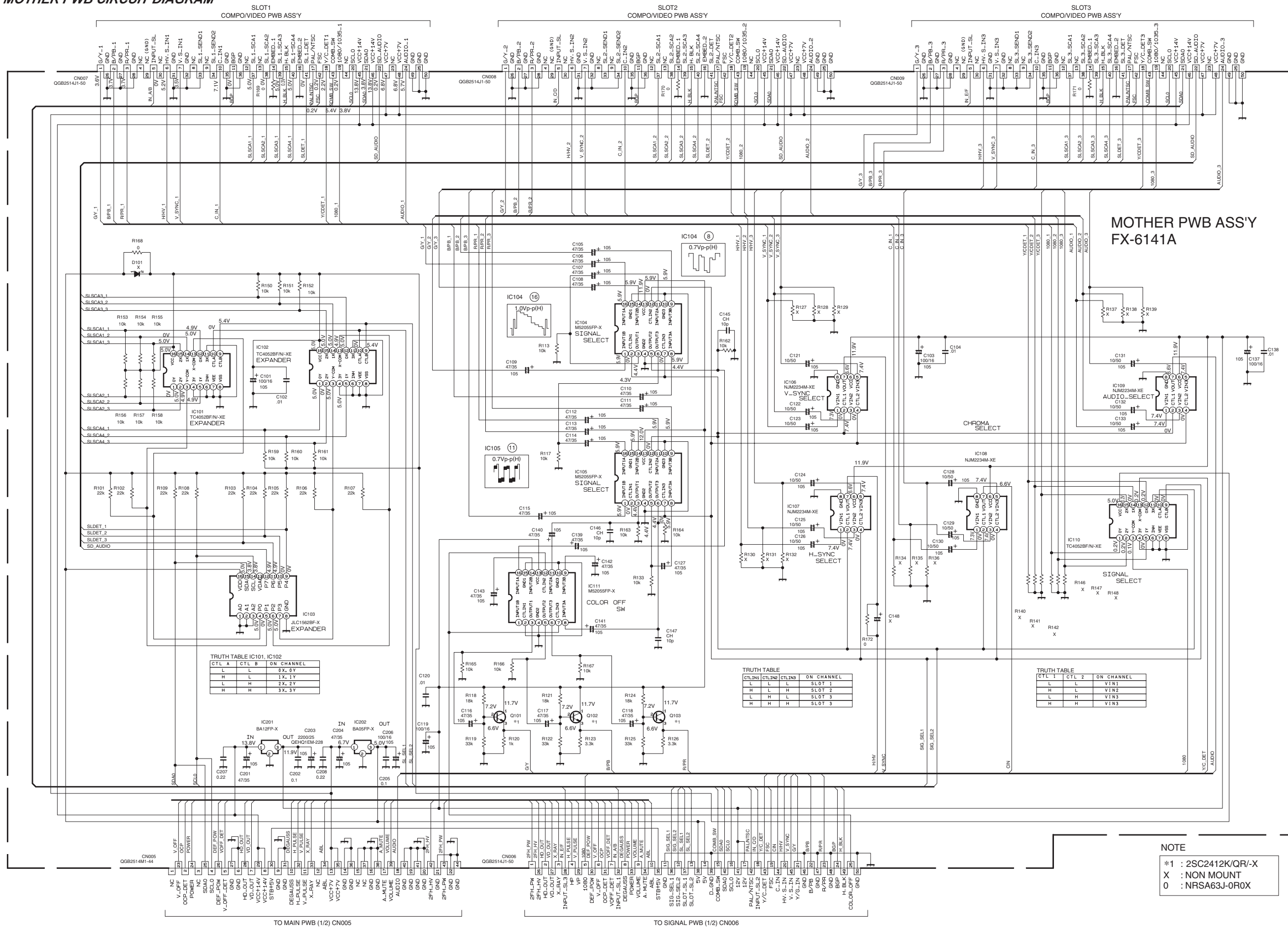
TO
MAIN PWB (2/2)
CN00T

NOTE
X : NON MOUNT
0 : NRSA02J-OR0X
*1 : 2SC2412K/QR/-X
*2 : 2SA1037AK/QR/-X
*3 : MA111-X
*4 : MA3051/M/-X

FRONT CONTROL PWB AND FRONT VR PWB CIRCUIT DIAGRAMS



MOTHER PWB CIRCUIT DIAGRAM



NOTE

*1	: 2SC2412K/QR/-X
X	: NON MOUNT
0	: NRSA63J-0R0X

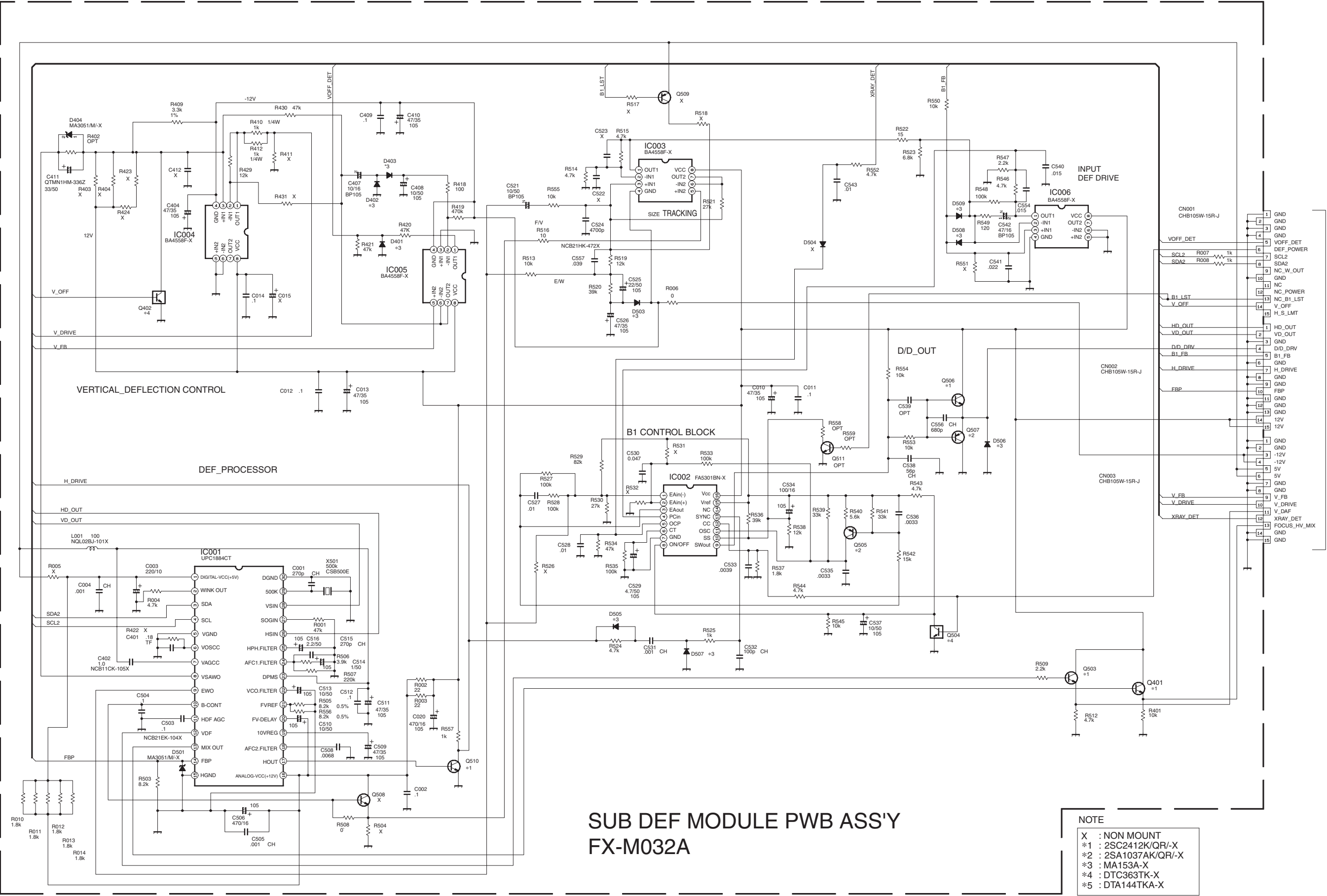
REMOTE PWB ASS'Y
FX-8031A

NOTE

- X : NON MOUNT
- 0 : NRSA02J-0R0X
- *3 : MA111-X
- *4 : MA3120/M/-X

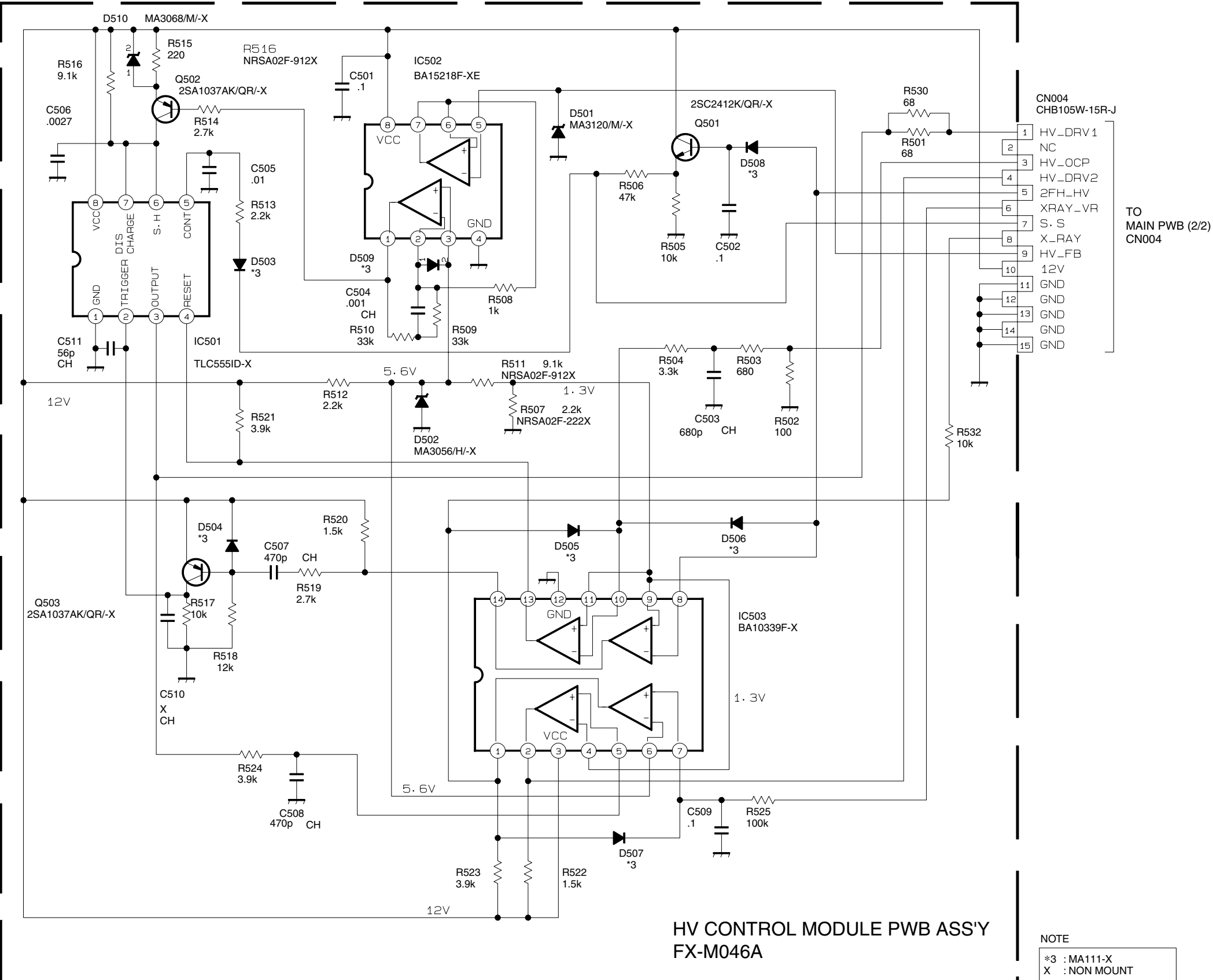
SUB DEF MODULE PWB CIRCUIT DIAGRAM

The schematic diagram is only for reference. Avoid replacing individual parts.
Replace entire unit only.



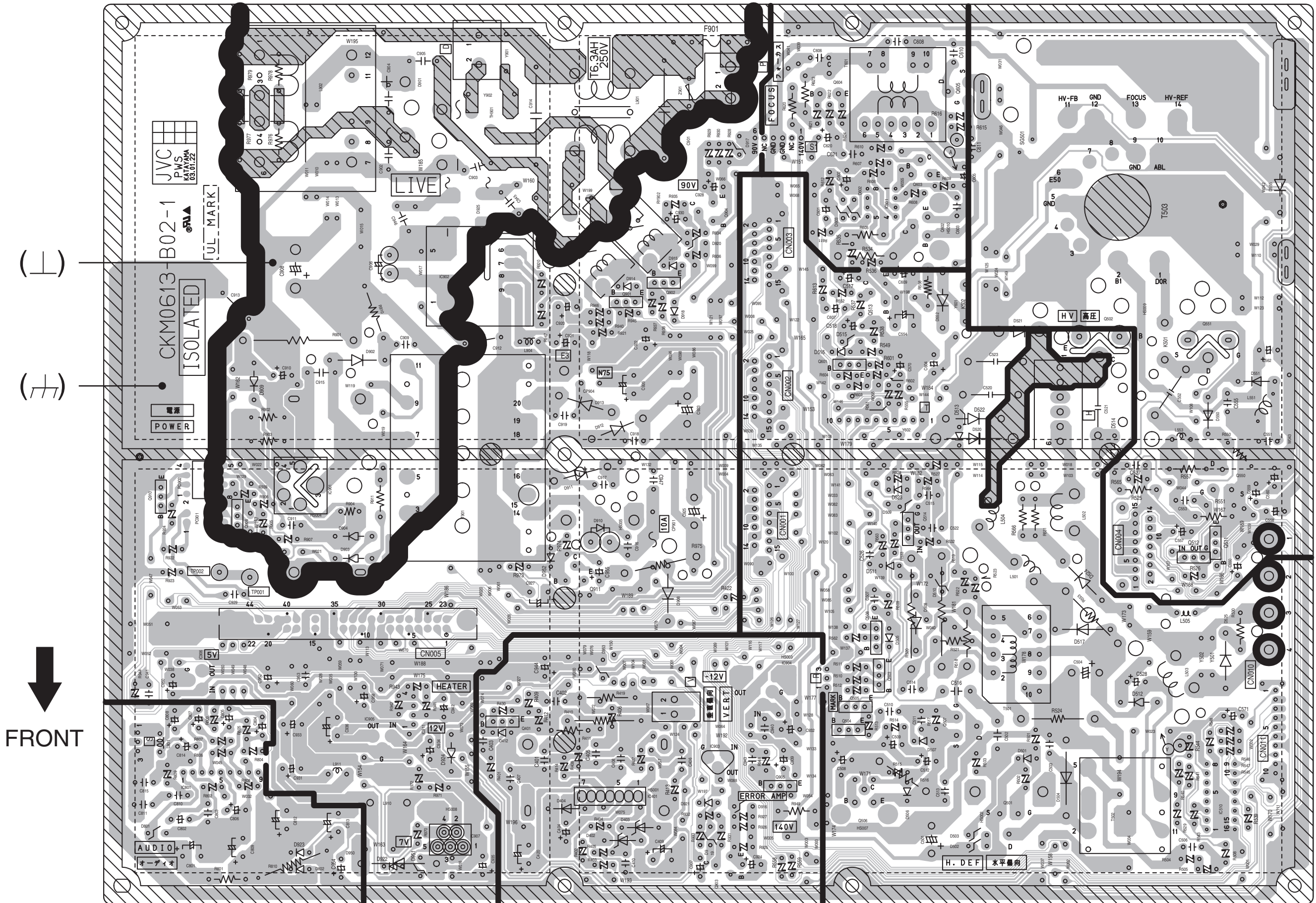
HV CONTROL MODULE PWB CIRCUIT DIAGRAM

The schematic diagram is only for reference. Avoid replacing individual parts.
Replace entire unit only.

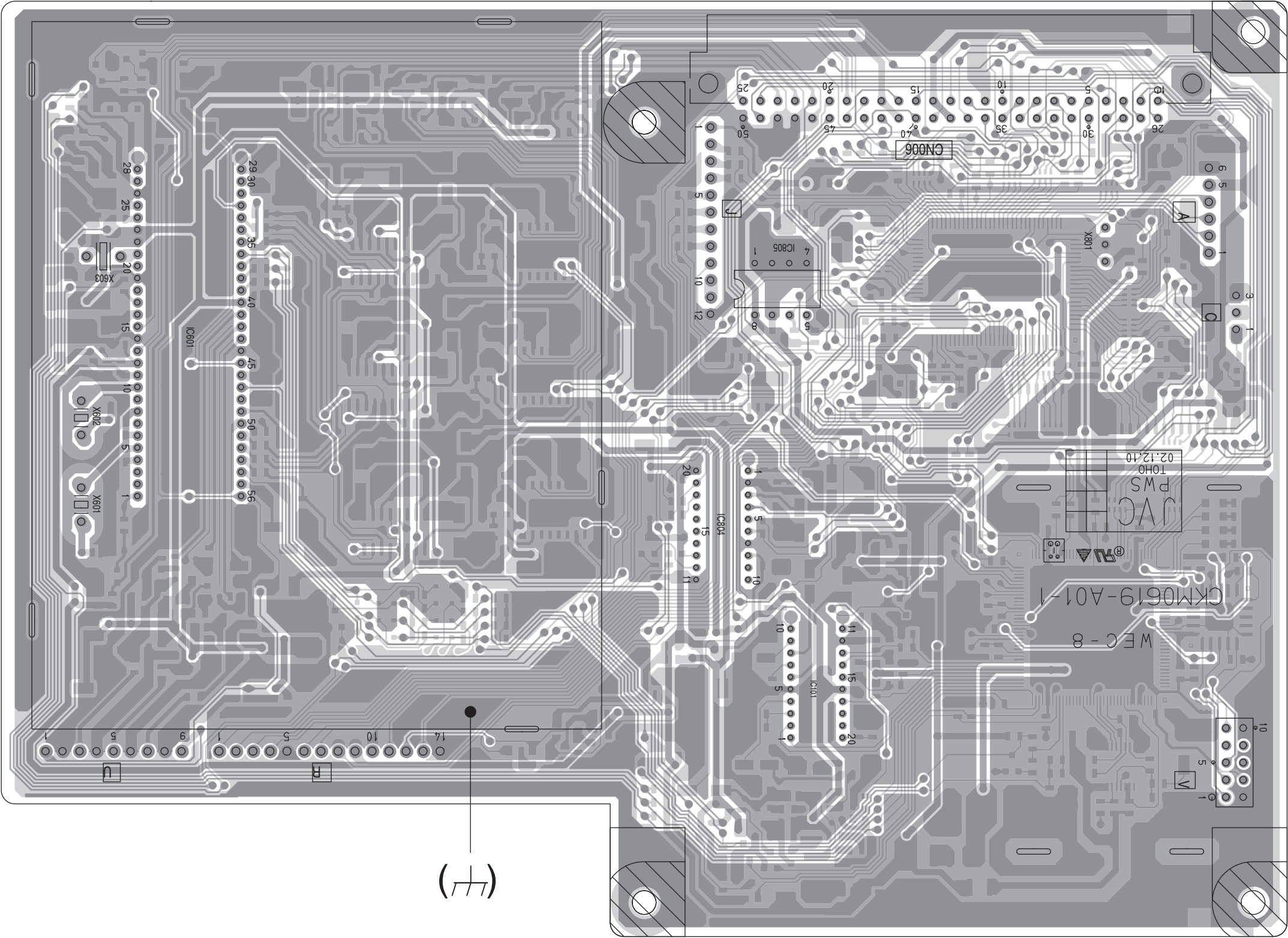


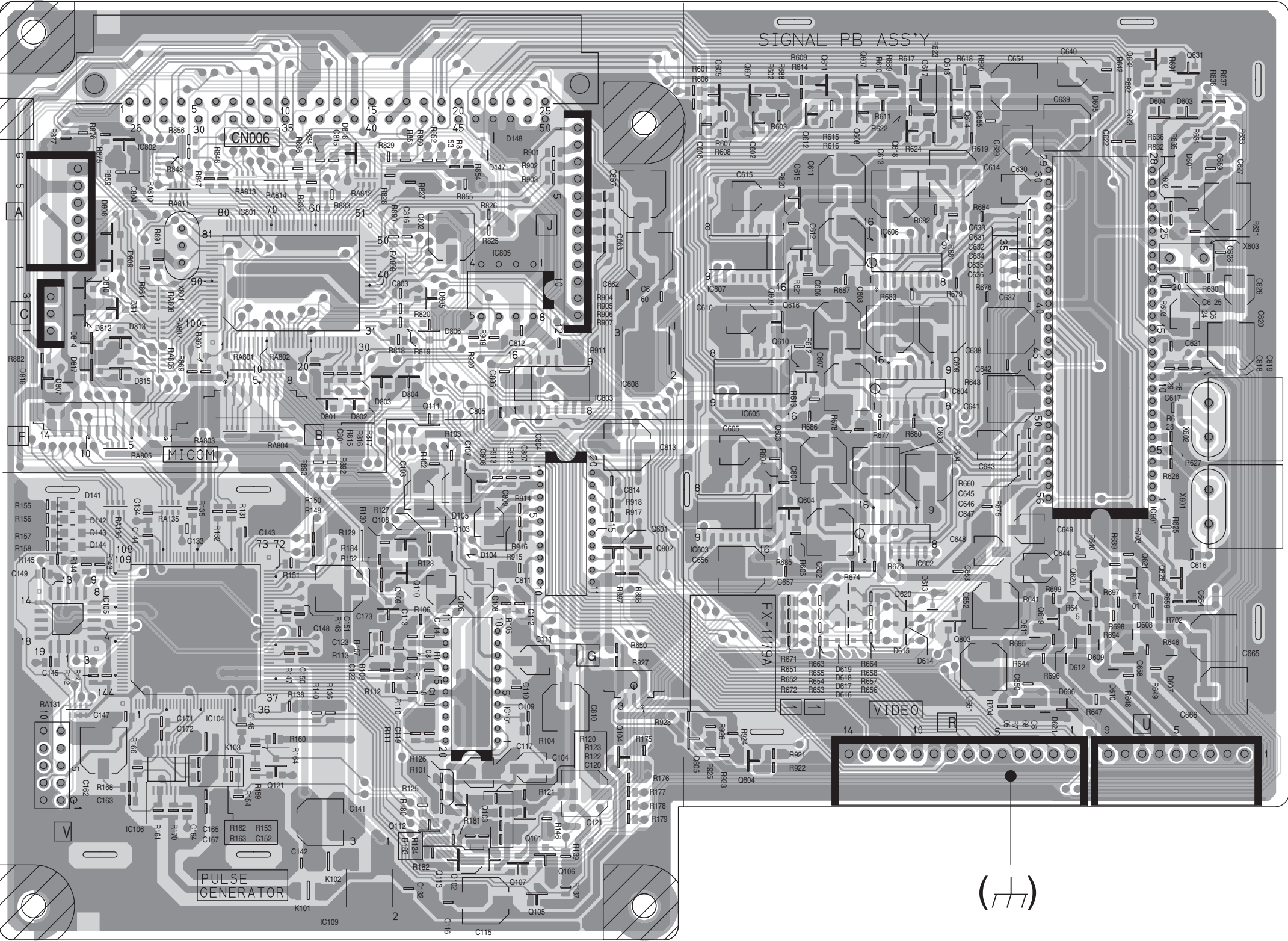
PATTERN DIAGRAMS

MAIN PWB PATTERN



FRONT
↑

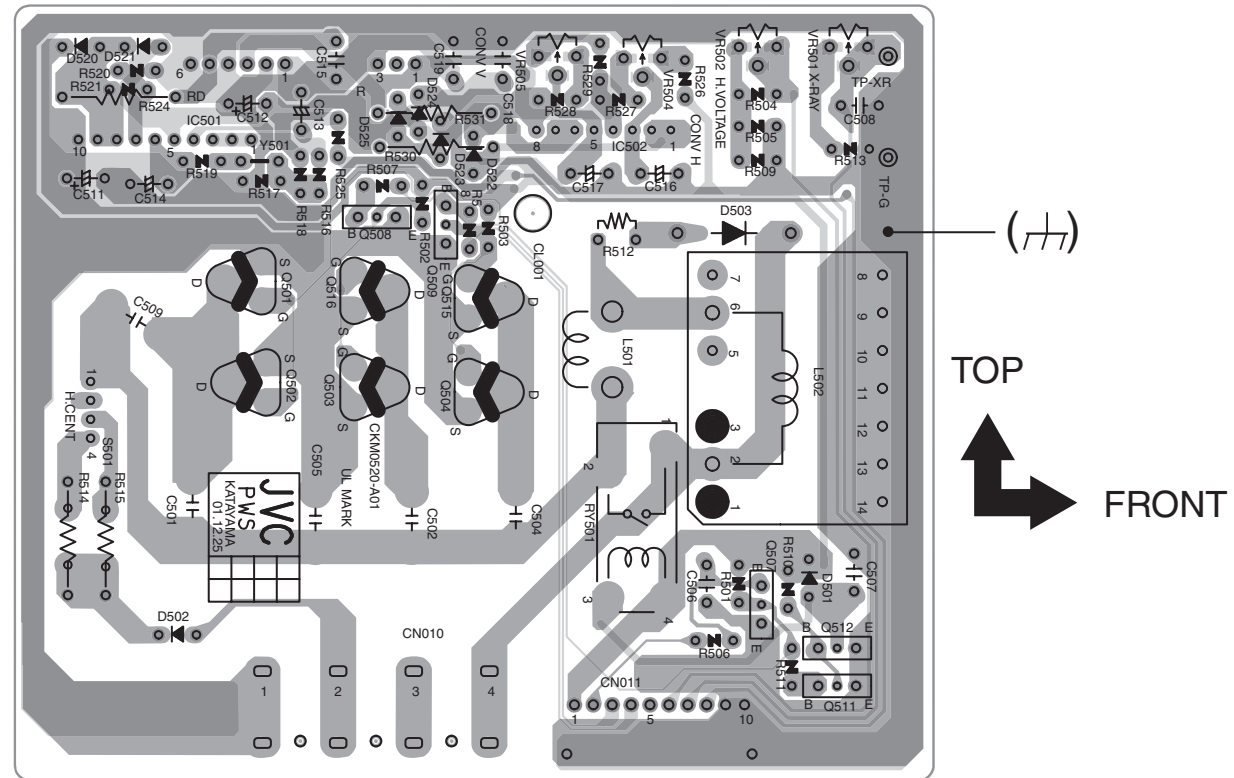




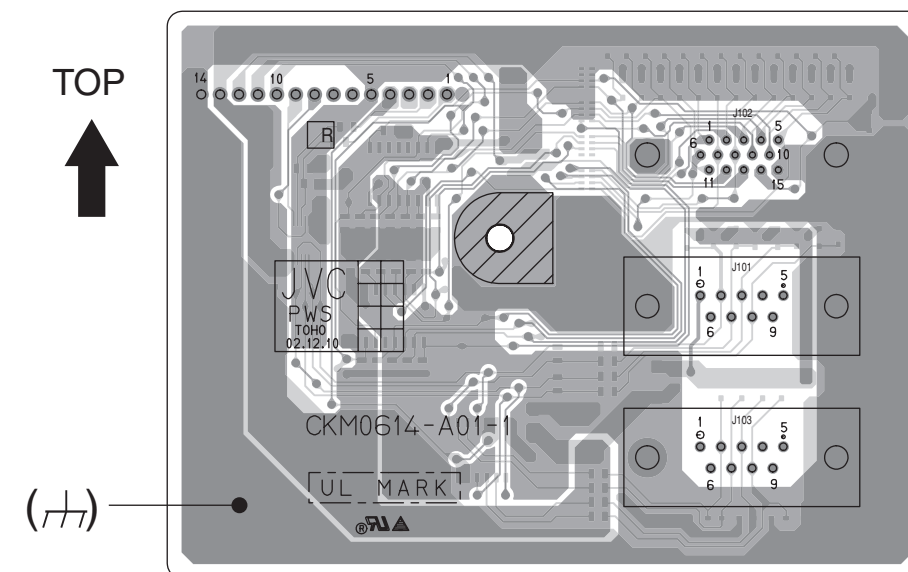
FRONT
↑

(H)

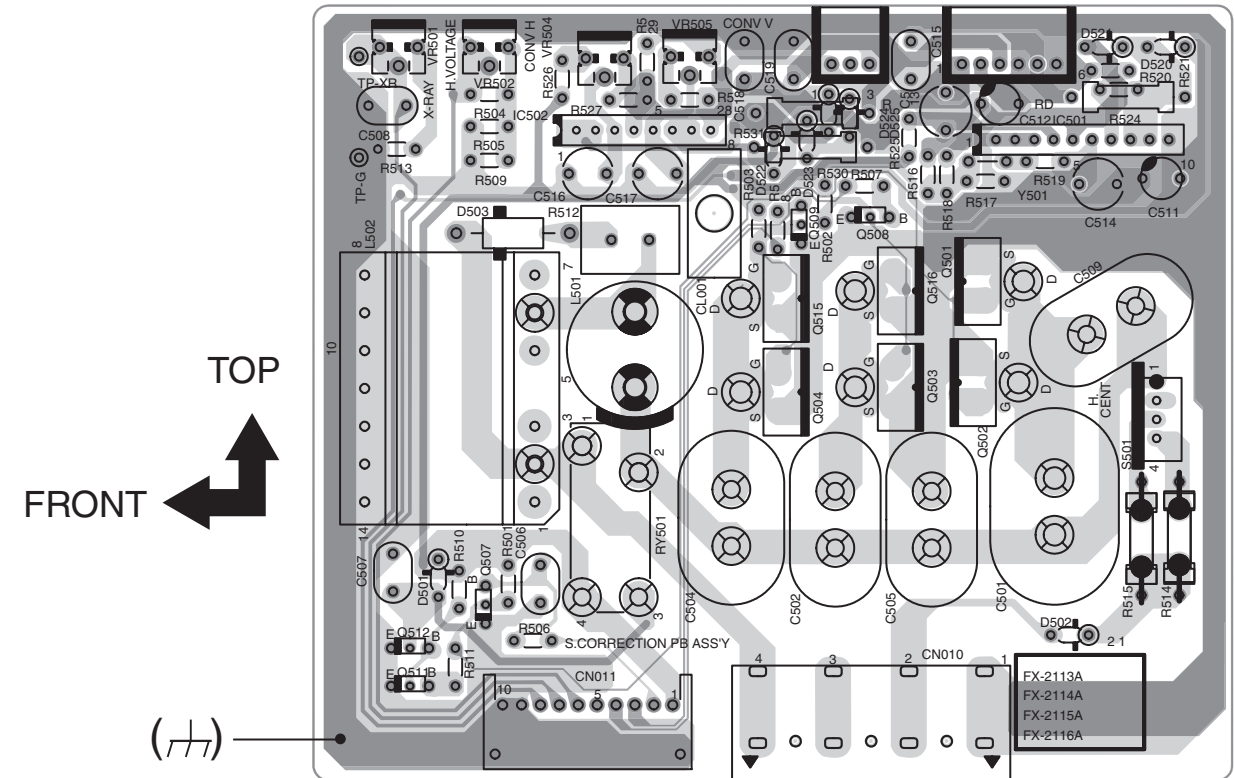
S. CORRECTION PWB PATTERN (SOLDER SIDE)



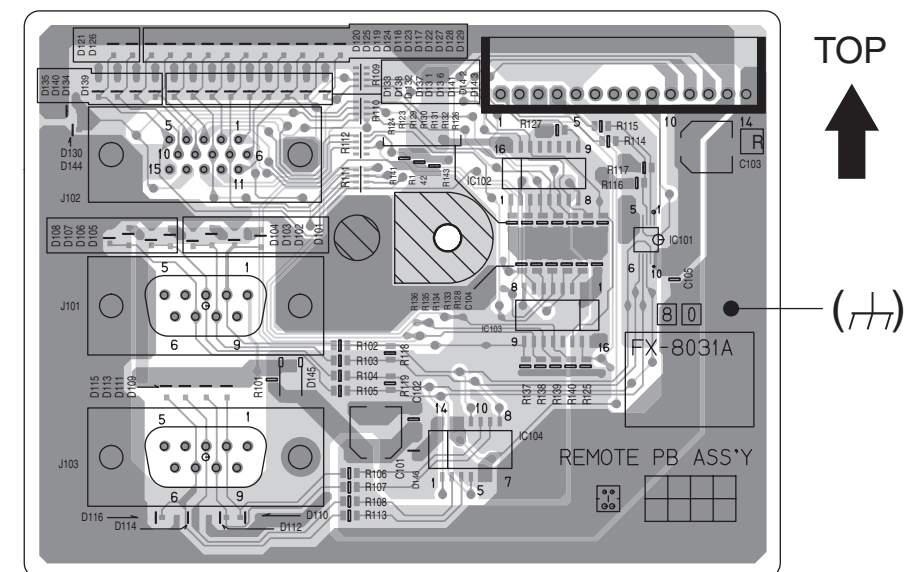
REMOTE PWB PATTERN (SOLDER SIDE)



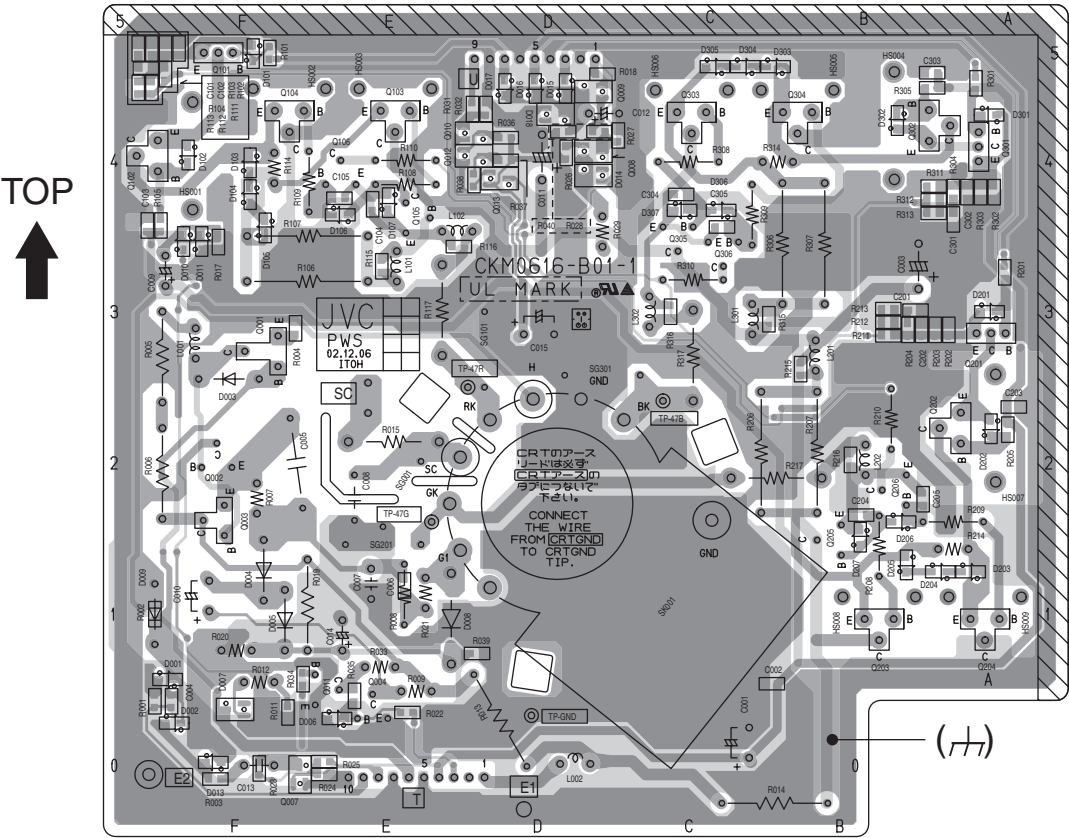
S. CORRECTION PWB PATTERN (PARTS SIDE)



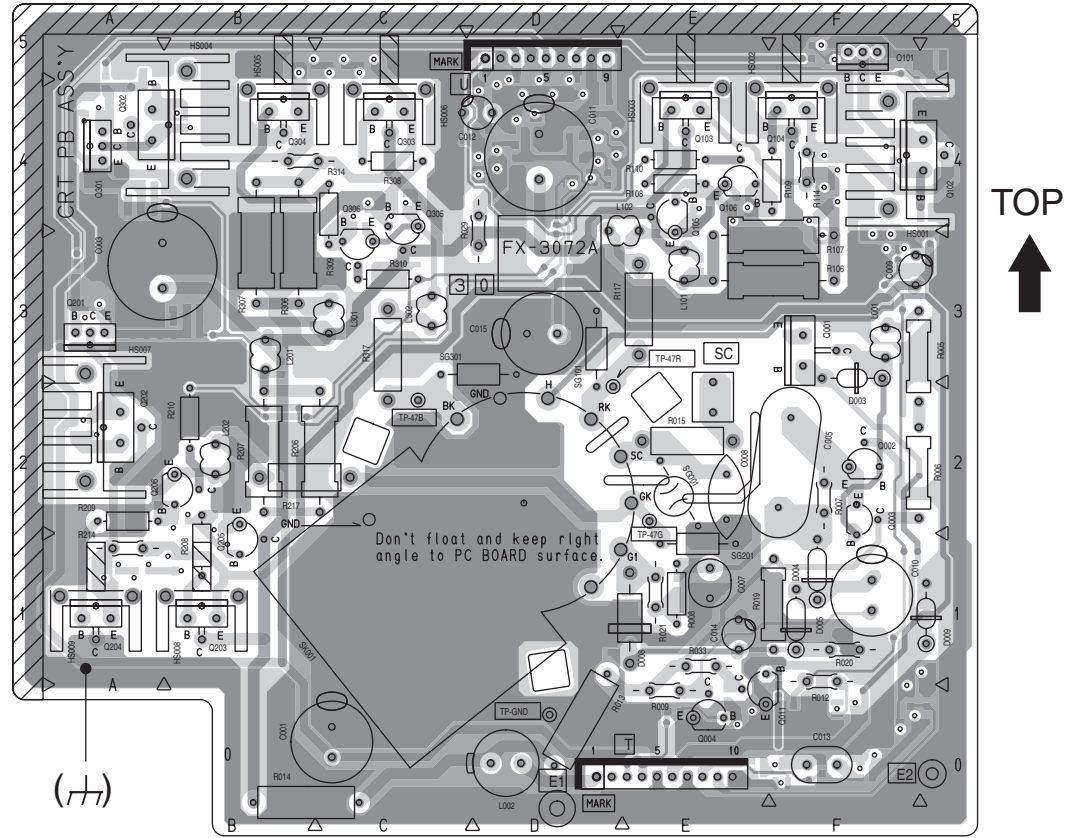
REMOTE PWB PATTERN (PARTS SIDE)



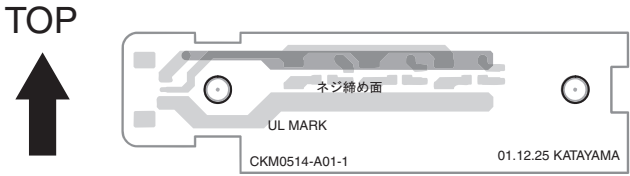
CRT SOCKET PWB PATTERN (SOLDER SIDE)



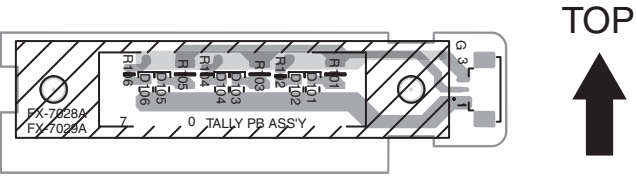
CRT SOCKET PWB PATTERN (PARTS SIDE)



LED PWB PATTERN (SOLDER SIDE)



LED PWB PATTERN (PARTS SIDE)

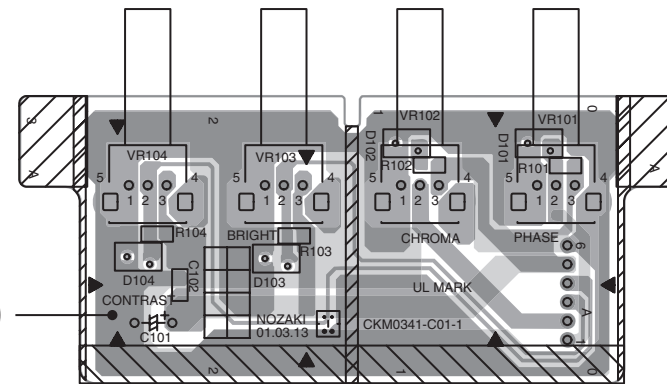


MOTHER PWB PATTERN (SOLDER SIDE)



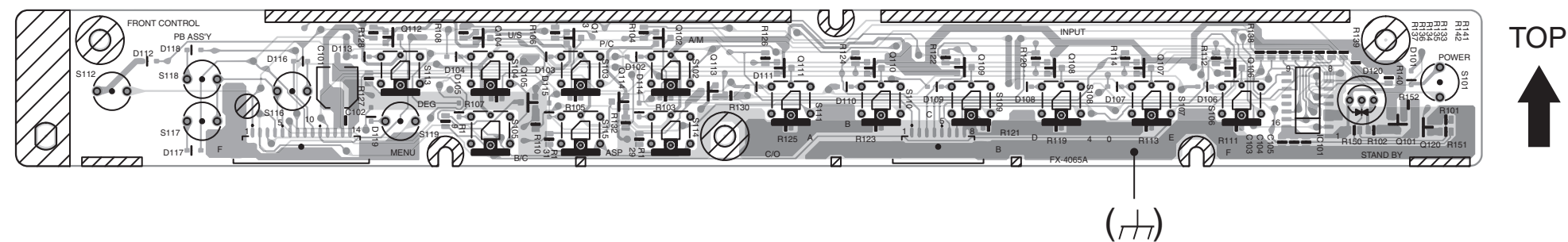
2-38

FRONT

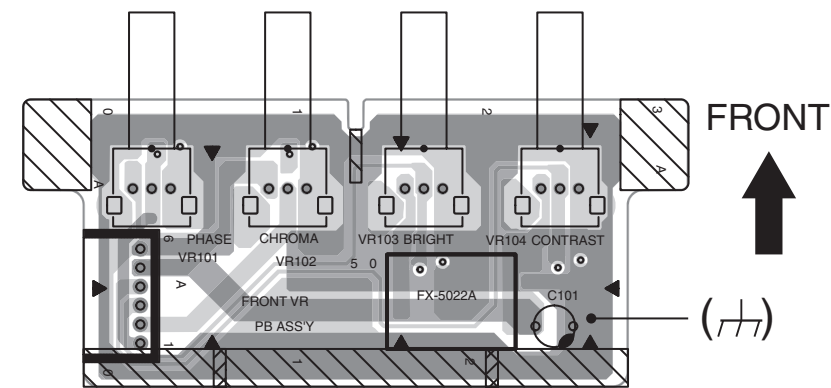

$$(\top)$$


 [TOP](#)

FRONT CONTROL PWB PATTERN (PARTS SIDE)



FRONT VR PWB PATTERN (PARTS SIDE)



MOTHER PWB PATTERN (PARTS SIDE)

